1. A method of block diagram modeling in a data processing system, comprising:

in a first block, receiving a first value indicative of an index into a lookup table;

in the first block, generating information indicative of the location of the first value relative to a predefined domain of possible indexed values that define regions;

in a second block, receiving the information generated by the first block; and

using the information received in the second block to determine an output value of a first lookup table.

2. The method of claim 1, wherein the generated information comprises information identifying a region of the predefined domain within which the first value falls.

3. The method of claim 2, wherein the generated information further comprises information identifying a position of the first value within the identified segment.

4. The method of claim 1, further comprising:

in a third block different from the second block, receiving the information generated by the first block; and

using the information received in the third block to determine an output value of a second lookup table different from the first lookup table.

5. The method of claim 1, further comprising:

in a fourth block, receiving a second value indicative of an index into a lookup table;

in the fourth block, generating information indicative of the location of the second value relative to a predefined domain of possible index values;

in the second block, receiving the information generated by the fourth block; and

using the information received in the second block from the first block and the fourth block to determine an output value of the first lookup table.

6. The method of claim 1, wherein the first and fourth blocks are two of N index search blocks used to perform an N-dimensional interpolation, further comprising:

in each of the N index search blocks, receiving a value indicative of an index into the lookup table and corresponding to a different one of N dimensions;

in each of the N index search blocks, generating information indicative of the location of such value relative to the predefined domain of possible index values; and

in the second block, receiving the information generated by each of the N index search blocks; and

using the information received in the second block to determine an output value of the first lookup table.

7. The method of claim 1, wherein determining an output value of the first lookup table comprises using the information received in the second block to interpolate values in a lookup table.

8. The method of claim 1, further comprising:

maintaining in a block library a pre-lookup index search block and an interpolation block that uses output of the pre-lookup index search block for interpolated table lookup; and

instantiating the index search block to create the first block and instantiating the interpolation block to create the second block.

9. The method of claim 8, further comprising:

receiving parameters from a user to instantiate the pre-lookup index search block and the interpolation block.

10. The method of claim 9, wherein receiving comprises providing the user with a dialog box having fields for specifying values of the parameters for the pre-lookup index search block.

11. The method of claim 9, wherein receiving comprises providing the user with a textual API for programmatically specifying values of the parameters.

12. The method of claim 10, wherein the parameters for the pre-lookup index search block comprise breakpoint data.

13. The method of claim 9, wherein receiving comprises providing the user with a dialog box having fields for specifying values of the parameters for the interpolation block.

14. The method of claim 13, wherein the parameters for the interpolation block comprise table data.

15. The method of claim 6, wherein the generated information comprises a breakpoint data set index value and a distance fraction value for each dimension and corresponding input value chosen by the user.

16. The method of claim 1, comprising:

using the graphical block diagram of the graphical block diagram model as a specification for interpretation by automatic code generation software that generates code to perform computations equivalent to computations performed by the graphical block diagram model.

17. A method of graphical block diagram processing, comprising;

receiving as an input a block diagram model that includes interpolation lookup blocks which each perform index search operations and interpolated table lookup;

detecting if the interpolation lookup blocks have shared input values and breakpoint data sets; and

interpreting the block diagram model as if the block diagram model included separate index search blocks and interpolated lookup blocks.

18. The method of claim 17, further comprising using the interpreted graphical block diagram by automatic code generation software that generates code to perform computations equivalent to computations performed by the graphical block diagram model.

19. A method of graphical block diagram processing, comprising:

maintaining in a block library an index search block and an interpolation block that uses output of one or more pre-lookup index search blocks; and

enabling a user to use the pre-lookup index search and interpolation blocks to build a graphical block diagram model.

20. A computer program product residing on a computer-readable medium for block diagram modeling, the computer program product comprising instructions causing a computer to:

in a first block, receive a first value indicative of an index into a lookup table;

in the first block, generate information indicative of the location of the first value relative to a predefined domain of possible indexed values;

in a second block, receive the information generated by the first block; and

use the information received in the second block to determine an output value of a first lookup table.

21. A computer system comprising:

in a first block, means for receiving a first value indicative of an index into a lookup table;

in the first block, means for generating information indicative of the location of the first value relative to a predefined domain of possible indexed values;

in a second block, means for receiving the information generated by the first block; and

means for using the information received in the second block to determine an output value of a first lookup table.